



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/845,897	04/28/97	IMAM	M 77.897

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IM71/0904

EXAMINER	
COPENHEAVER, B	
ART UNIT	PAPER NUMBER
	1771

DATE MAILED: 09/04/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/845,897

Applicant(s)
Imam et al.

Examiner
Blaine R. Copenheaver

Group Art Unit
1771



☒ Responsive to communication(s) filed on Aug 3, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) 5, 6, 8-10, and 12-16 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-4, 7, 11, and 17-22 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Applicant's election with traverse of aluminum metal and epoxy polymer species in Paper No. 4 is acknowledged. The traversal is on the ground(s) that there is no undue burden on the examiner to examine the entire application on the merits. This is not found persuasive because the examiner would have a serious burden in examining all of the listed species for the metal foam and organic impregnate along with all of the possible combinations of the metal foams with the organic impregnates. The examiner will agree with the applicants' proposed ^{comprise}~~comprise~~ of including Al alloys with the elected aluminum specie, since they do appear to be very closely related.

The requirement is still deemed proper and is therefore made FINAL.

2. It is noted that the applicants literally elected epoxy for the impregnate; however, lists claim 12, which is drawn to an acrylic, as the elected specie. This is believed to be an obvious typographical error by the applicants. Accordingly, claims 1-4, 7, 11, and 17-22 are being examined as the elected species. Claims 5, 6, 8-10, and 12-16 are withdrawn from further consideration by the examiner.

3. Claims 1, 2, 4, 7, and 17-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 and 7-21 of copending Application No. 08/846,192. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims are drawn to a generic embodiment of the invention claimed in the '192 application. It is noted that claims 1, 2, 4, 7, and 17-22 of the present application, when read in light of the present specification (for example, page 9, lines 17-23), read on the claims of the '192 application.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent. *In re Vogel*, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.78(d).

5. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 2, the terms "pores sizes" is idiomatic. It is suggested that the applicants change the term "pores" to --pore--.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 7, 11, 17, 19 and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jarema et al. (US 3,707,401). Jarema discloses a metal foam, such as an Al or Al-alloy foam, having open cells which is impregnated with an organic material, such as an epoxy. The metal foam can contain cells which are of equal sizes (col. 2, lines 2 and 3). Jarema clearly anticipated the claimed subject matter.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 18 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jarema et al. '401. With regard to claim 18, Jarema does not specifically disclose a metal foam having a gradation of pore sizes in at least one direction along the metal foam. However, all of the Figures, namely Figures 1-3, appear to show this limitation with respect to the thickness direction. Moreover, Jarema discloses that the cells can be of different sizes. This at least suggests the present limitation of the metal foam having a gradation of pore sizes. With regard to claim 21, Jarema does not specifically disclose the thickness of the metal foam being no less than 3 times the average diameter of the cells. However, Figure 2 clearly shows such an embodiment. Alternatively, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized either the thickness of the metal foam or average cell diameter of the metal foam, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. In the present case, it would have been obvious to the skilled artisan to have prepared a thicker metal foam, motivated by the desire to enhance the tensile strength and barrier properties of the metal foam. And, it would have been obvious to the skilled artisan to have prepared a metal foam

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having a smaller average cell diameter, motivated by the desire to obtain a predetermined decorative impregnated coating on the surface of the foam and/or to have optimized the compressive, flexural, shear and tensile strength of the resulting impregnated foam. Jarema either anticipated or strongly suggested the claimed subject matter.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jarema et al. '401. Jarema does not specifically disclose a laminate comprising a plurality of sheets according to claim 19. Jarema does disclose laminating additional material onto the impregnated metal foam sheet (col. 3, line 37 to col. 4, line 39). This suggests that the impregnated metal foam sheets of Jarema are not limited to monolayer embodiments. While a laminate containing a plurality of impregnated metal foam sheets are not literally disclosed in Jarema, the skilled artisan would have found it obvious to have formed a laminate containing a plurality of like impregnated metal foam sheets, motivated by the desire to further enhance of the properties exhibited by the use of one impregnated metal foam sheet. Moreover, claim 19 does not require that the lamination of a plurality of sheets take place on the top surface (impregnated surface) of the impregnated foam sheet. Thus, this claim reads on laminating a plurality of impregnated foam sheets in a side-by-side relationship. Such a structure would have been obvious to the skilled artisan, motivated by the desire to obtain an impregnated metal foam article having a plurality of regions which slightly differ in properties.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine R. Copenheaver whose telephone number is (703) 308-1261. The examiner can normally be reached on Monday-Thursday from 8:30 AM-6:00 PM and on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Marion E. McCamish, can be reached at (703) 308-3961. The fax numbers for Technology Center 1700 are (703) 305-7718 and (703) 305-3601.


Blaine R. Copenheaver
Patent Examiner
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B. Copenheaver
August 23, 1998